ABSTRACT

The present invention relates to a method of forming an insulating film in a semiconductor device. The method includes forming a low dielectric constant insulating film containing a foaming agent on a semiconductor substrate, forming a contact hole or a trench in a low dielectric constant insulating film by means of a dual damascene process, and then making the low dielectric constant insulating film containing the foaming agent a porous low dielectric constant insulating film. It is therefore possible to prevent chemicals used in a dual damascene process from remaining in pores of the porous low dielectric constant insulating film. Consequently, the present invention has advantages that it can prevent metal wirings formed in a contact hole or a trench from being eroded and enhance reliability of the process and electrical properties of the device.